



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/721,000	01/03/2001	Bertil Brandin	P00.1982	3129

30596 7590 11/21/2002

HARNESS, DICKEY & PIERCE, P.L.C.
P.O.BOX 8910
RESTON, VA 20195

EXAMINER

SHECHTMAN, SEAN P

ART UNIT	PAPER NUMBER
----------	--------------

2125

DATE MAILED: 11/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/721,000

Applicant(s)

BRANDIN ET AL.

Examiner

Sean P. Shechtman

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. This application filed under former 37 CFR 1.60 lacks the necessary reference to the prior application. A statement reading "This is a continuation of Application No. PCT/DE99/01915, filed 07/01/1999." should be entered following the title of the invention or as the first sentence of the specification.
2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

Fig. 8, elements 802-806.

Fig. 9, elements 901-906, and 911-916.

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to because the reference characters used to denote elements in the drawings are inconsistent with that of the specification. Applicant depicts state machines whereby certain state numbers correspond to a reference character (i.e. Figure 8, state 0 corresponds to element number 801), however, applicant also refers to these state numbers as

Art Unit: 2125

reference characters themselves. The terminology must be consistent throughout the entire disclosure. For example:

Page 9, lines 15, 24, and 25.

Page 10, lines 8, 14, 16, 27, and 29.

5. The drawings are objected to because applicant's use of terminology is inconsistent with respect to Fig. 9 or Fig. 9A & 9B (For example: Page 10 lines 19 and 27). Similarly the objection applies to Fig. 10 or Figs 10A & 10B. There are no drawings labeled Fig. 9 or Fig. 10. Furthermore, Figs. 9A & 9B are duplicates of each other including, the reference characters referred to in the specification are labeled differently, however, perform the same function.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

6. The examiner has provided a number of examples of the drawing deficiencies above, however, the list of deficiencies may not be all inclusive. Applicant should refer to these as examples of deficiencies and should make all the necessary corrections to eliminate the drawing objections.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 1 and 8 are directed towards a method and apparatus for performing validation. The specification does not describe how the method and apparatus automatically verify an interplay of functionalities in accordance with an input to said complete process. Furthermore, the specification does not provide means for said input to said complete process. Further still, the specification fails to describe what is meant by "functionalities".

Referring to claim 8, the specification is not enabling for a processor unit that can simulate or observe the system and system behavior (Page 8, lines 4-7), thereby performing a validation.

Referring to claims 1 and 8, while the specification describes the automatic verification of predetermined characteristics (Page 8, line 7), the specification does not describe the automatic verification of an interplay of functionalities. Furthermore, the specification does not describe how a validation result is produced.

Claim 6 is directed towards a method step of designing an automatic placement machine. The specification fails to provide any information in regards to a method step of designing an automatic placement machine.

Claim 7 is directed towards the control of a technical installation. The specification fails to describe what a technical installation is.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 2125

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-8 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

Claims 1-8 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. Note the format of the claims in the patent(s) cited.

Claim 1 is directed towards a method comprising the step of performing a validation by automatically verifying an interplay of functionalities in accordance with an input to said complete process, while not impeding each individual process during an operation. However, claim 5 is directed towards said method, wherein one or more of the individual processes may be an impeding processes, thus contradictory to claim 1.

Claims 1 and 8 are directed towards identifying functionalities, performing a validation, and producing a validation result. It is unclear what the functionalities are, what is being validated, and what the result of the validation is.

Referring to claim 2, it is unclear what is being sequentially optimized.

Referring to claim 4, it is unclear if all the individual process are controlled by the same single software unit, or if each individual process is controlled by it's own individual software unit.

Referring to claim 7 is unclear what is meant by a technical installation.

9. Due to the number of 35 USC § 112 rejections, the examiner has provided a number of examples of the claim deficiencies in the above rejections, however, the list of rejections may not be all inclusive. Applicant should refer to these rejections as examples of deficiencies and should make all the necessary corrections to eliminate the 35 USC § 112 problems and place the claims in proper format.

Due to the vagueness and a lack of clear definition of the terminology and phrases used in the specification and claims, the claims have been treated on their merits as best understood by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

10. Claims 1-4, and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,742,823 to Edwards et al.

Referring to claim 1, Edwards et al. discloses a method for designing a control of a complete process which comprises a number of individual processes (Col. 2, lines 30-48; Col. 13, lines 30-46), said method comprising the steps of:

Identifying functionalities of said individual processes (Col. 14, lines 13-18); Performing a validation by automatically verifying an interplay of said functionalities in accordance with an input to said complete process, while not impeding each individual process during an operation, producing a validation result (Col. 2, lines 23-29; Col. 7, lines 7-18; Col. 13, lines 30-46); and determining data for controlling said complete process from said validation result (Col. 2, lines 30-48).

Referring to claim 2, Edwards et al. discloses the method above further comprising the step of performing a sequence optimization (Col. 13, lines 8-30; Col. 14, lines 51-59).

Referring to claim 3, Edwards et al. discloses the method above further comprising the step of producing data for said control in an executable code from (Col. 5, lines 34-65).

Referring to claim 4, Edwards et al. discloses the method above further comprising the step of controlling individual affected processes by a software unit which is one of said functionalities of said individual processes (Col. 5, line 34 – Col. 6, line 9).

Referring to claim 6, Edwards et al. discloses the method above further comprising the step of controlling individual processes of an automatic placement machine (Col. 2, lines 49-53).

Referring to claim 7, Edwards et al. discloses the method above further comprising the step of controlling the technical installation with data determined for controlling said complete process (Abstract).

Referring to claim 8, Edwards et al. discloses an arrangement for designing the control of a complete process comprising a number of individual processes (Col. 2, lines 30-48; Col. 13, lines 30-46); and a processor unit (Col. 4, line 45 – Col. 5, line 49) configured to provide:

Identification of functionalities of said individual processes (Col. 14, lines 13-18); a validation, by automatically verifying an interplay of said functionalities in accordance with an input to said complete process, in a manner such that each of said individual processes is not impeded during an operation (Col. 2, lines 23-29; Col. 7, lines 7-18; Col. 13, lines 30-46); and data from a result of said verification that is used for controlling said complete process (Col. 2, lines 30-48).

11. Claims 1, 3-4, and 7-8 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,247,064 to Alferness et al.

Referring to claim 1, Alferness et al. discloses a method for designing a control of a complete process which comprises a number of individual processes (Col. 3, lines 6-10), said method comprising the steps of:

Identifying functionalities of said individual processes (Col. 5, lines 26-48); Performing a validation by automatically verifying an interplay of said functionalities in accordance with an input to said complete process, while not impeding each individual process during an operation, producing a validation result (Abstract lines 6-10); and determining data for controlling said complete process from said validation result (Col. 12, line 44 – Col. 13, line 10).

Referring to claim 3, Alferness et al. discloses the method above further comprising the step of producing data for said control in an executable code from (Col. 5, lines 26-48).

Referring to claim 4, Alferness et al. discloses the method above further comprising the step of controlling individual affected processes by a software unit which is one of said functionalities of said individual processes (Col. 10, lines 25-26).

Referring to claim 7, Alferness et al. discloses the method above further comprising the step of controlling the technical installation with data determined for controlling said complete process (Col. 11 line 57 – Col. 12, line 10).

Referring to claim 8, Alferness et al. discloses an arrangement for designing the control of a complete process comprising a number of individual processes (Col. 3, lines 6-10); and a processor unit configured to provide:

Identification of functionalities of said individual processes (Col. 5, lines 26-48); a validation, by automatically verifying an interplay of said functionalities in accordance with an input to said complete process, in a manner such that each of said individual processes is not

impeded during an operation (Abstract lines 6-10); and data from a result of said verification that is used for controlling said complete process (Col. 12, line 44 – Col. 13, line 10).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to blocking in the control of a multi-processor system for controlling multiple processes.

U.S. Pat. No. 6,065,037 to Hitz et al.

The following patents are cited to further show the state of the art with respect to sequence optimization.

U.S. Pat. No. 5,696,956 to Razdan et al.

The following patents are cited to further show the state of the art with respect to a control system for controlling multiple processes or multiple process equipment based on an identification function.

U.S. Pat. No. 5,428,555 to Starkey et al.

U.S. Pat. No. 5,138,713 to Loten

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Shechtman whose telephone number is (703) 305-7798.

The examiner can normally be reached on Monday-Friday from 9:30am to 6:00pm.

Art Unit: 2125

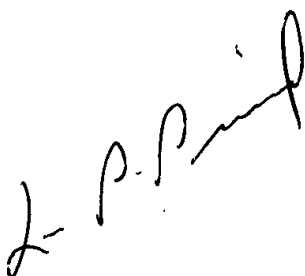
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard, can be reached on (703) 308-0538. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

SPS

Sean P. Shechtman

November 7, 2002

A handwritten signature in black ink, appearing to read 'L. P. Picard', slanted upwards from left to right.

**LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100**